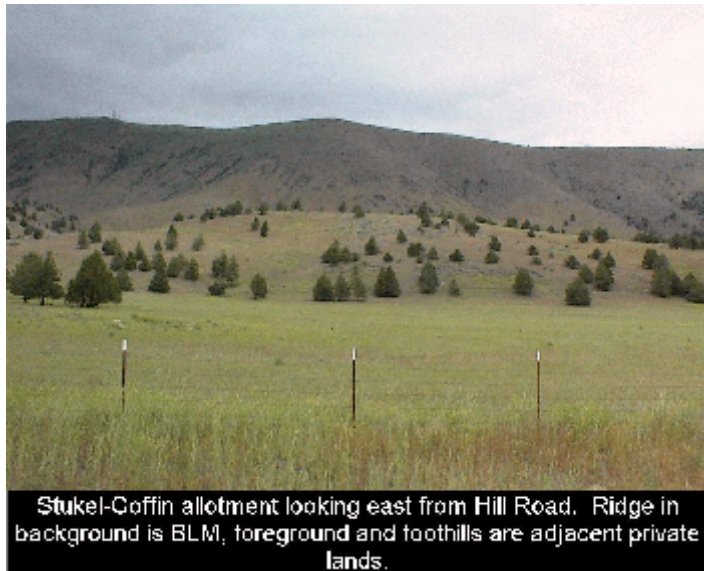


Stukel-Coffin Allotment - #0812 **Rangeland Health Standards Assessment (RHSA)**



Introduction/Background

The Stukel-Coffin allotment (#0812 - referred to in this Assessment as the Coffin allotment) is located on the main ridge and steep west/southwest slope of Stukel Mountain. Stukel Mountain lies about 8+ miles southeast of Klamath Falls, Oregon. The Coffin allotment is comprised of a 760 acre, mostly contiguous block of public land that includes the Stukel radio tower sites on the north end and runs almost to Hill Road on the south end. This BLM parcel is predominantly surrounded by private lands which are used in common with the public lands (see map). The lessee for this

allotment has been Nancy Coffin since 1969. The private base property lands lie immediately to the south and west of the BLM leased lands.

Most of the Coffin allotment is very steep and mountainous with better than 50% slopes. Of all the allotments on Stukel Mountain, Coffin probably has the highest proportion of very steep lands, and because of this, most of the allotment is marginally used or useable to cattle. The allotment is largely tree-less as a result of a large wildfire in 1936 and smaller subsequent fires which have in total burned the entire allotment. Though the charred boles of ponderosa pine (*Pinus ponderosa*) and western juniper (*Juniperus occidentalis*) are still to found littering the area, live trees of either species are still scattered and infrequent. The area is now dominated by shrub/bunch grass vegetation communities.

The allotment lies directly west of and adjacent to the Stukel-Hill (#0828) allotment. There is no fencing separating the two allotments. In fact, the two allotments were grazed in common in the past as evidenced by grazing licenses which for years have included the following condition for grazing use: "*Use will be in common with Hill Brothers*". However, the steep topography of Coffin acts as an effective "fence" between the allotments. The only real livestock interchange possible is on the gentle sloped, extreme south end of the allotment (next paragraph). There is no known water source on the Coffin allotment. Presumably, the water to make grazing use of the allotment is either on the adjacent private lands or is the water on the Hill allotment (Hill Reservoir). Practically speaking, however, the Coffin allotment grazing lease is a convenience to cover the eventuality of cattle wandering onto the area from the adjacent private lands primarily to the west..

A small part of this allotment is an 80 acre parcel that is almost detached from the rest of the allotment (just touches corners) and lies on the extreme southern end of the allotment. This parcel has a few acres of “gentle” slope, though it is dissected by a steep walled draw which is the mouth of Pine Creek canyon. This small area is immediately adjacent to the south end of the Stukel-Hill allotment and probably has been used in common with it. An inspection of the area recently noted that, although little use has occurred in recent years, the area obviously received very high grazing use in past decades suppressing conditions. (See the Stukel-Hill Assessment for a discussion about Pine Creek canyon and the small parcels of adjacent BLM lands on the south end of the area.)

The current grazing lease for the Coffin allotment is 55 AUMs with a season of use of 5/15 to 6/30 (37 head). This season-of-use has been in place since 1975 when the grazing season was first specifically prescribed on the license. Prior to 1975, Coffin (and all section 15 allotments) were licensed via a yearly “rental”, though the AUMs were still limited to 55 AUMs. Unlike many of the other allotments on Stukel, past file history is lacking for this allotment. It is probable that this allotment had a higher grazing preference prior to 1969 and was cut back like others on Stukel. However, there is no evidence to support that fact in the available files. The history of the Coffin allotment is probably similar to that of the neighboring Hill allotment, though Coffin would have had less grazing use historically than Hill due to the slope inhibition. There has never been any authorized exchange-of-use “credit” for the private lands that lie adjacent to the BLM.

The Klamath Falls ROD/RMP (page H-1) states that “*All changes to...livestock grazing management will be made through the monitoring and evaluation process...*” Because of the allotment’s low priority, no monitoring information has been collected on it. This Assessment will be an evaluation of existing grazing file information and recent (June 2002) field observations to determine if current livestock grazing management is meeting resource objectives. This allotment had no “Identified Resource Conflicts/Concerns” noted in the ROD/RMP (Appendix H, page H-19). It is not unusual for a “C” category allotment to have no specific RMP objectives. This Assessment will simply address grazing within the framework of the 5 Standards as required by current BLM policy.

The allotment was originally ranked as an overall “C” category allotment during the first round of Selective Management classification completed on 9/21/1982. Categorization of grazing allotments has been required by Bureau policy since the early 1980's in order to direct limited manpower and funding to resource problem areas that need it and would benefit most. A brief summary of the categorization efforts follows as it is indicative of relative resource concerns past and present. (“I” or “Improve” allotments have the highest priority resource concerns, “M” or “Maintain” allotments are moderate to low priority; and “C” or “Custodial” allotments are the lowest resource priority, usually due to small size and/or lack of ability to make significant change. See the ROD/RMP Appendix H, pages H-69-70 for further information on the allotment categorization - “selective management” - process.):

1982 Ranking

#1 - Range Condition: Satisfactory (“M” ranking).

#2 - Forage Production Potential: Potential is moderate to high & present production is near potential. (“M” ranking)

#3 - Resource Use Conflicts: Limited conflicts or controversy may exist. (“C” ranking)

#4 - Economic Returns: No opportunity for positive economic returns or no developments proposed. (“C” ranking)

#5 - Present Management: *Satisfactory or is only logical practice. ("C" ranking)*

The following note was made on the rating form in 1982: *"Allotment has potential for people (rec) livestock controversy. Private land owners resent the public on private land in this area."* This is a common note on all of the Stukel Mountain allotments during the categorization process. The June 1995 KFRA ROD/RMP (page h-19) carried the original "C" category ranking forward.

Land Use Planning: During the early stages of the KFRA RMP process (1990-1991), many grazing allotments in the KFRA were generally evaluated by an interdisciplinary team (IDT) - known at the time as the "mini-core team". The Coffin allotment was not specifically addressed by the team reflecting the low priority and lack of perceived resource concerns at that time.

Public Use Conflicts: Like all the public lands on Stukel Mountain, the Coffin allotment has also experienced chronic "people" problems for decades. The allotment contains the upper part of the Stukel radio tower access road which is open to public entry except during the winter closure period from mid-November to mid-April. These problems were already explained in some depth in other Stukel Rangeland Health Standards Assessments (see the completed Stukel-Dehlinger C. allotment #0815 Assessment) and will not be fully reiterated here except to note that the problems have been around for a long time and have not gone away.

Additional Assessment Process Notes:

Bureau policy and direction articulates a preference that RHSA's be done at the watershed scale, unless "compelling" reasons dictate a different assessment boundary. Since no watershed analysis is planned for Stukel Mountain, the area allotments will be assessed individually. Since grazing management - and changes to such - must be effected physically at the allotment level and administratively at the permit/lease level, evaluation and assessment at an allotment scale is appropriate and usually unavoidable. Typically, cattle use stops/begins at an allotment boundary fence. This assessment process is also in accordance with current direction and policy guidance, including the recent Rangeland Health Standards Handbook, H-4180-1.

Some of the information discussed under one Standard may be discussed under one (or more) of the other Standards. This is partially due to the same monitoring or observational information being used to address several Standards. The bulk of the monitoring information is discussed in the first Standard because the allotment is upland in nature and the first Standard on upland functionality makes a convenient location for most of the analysis.

The condition or degree of function of an area in relation to the Standards and its trend toward or away from any Standard is determined through the use of reliable and scientifically sound indicators - know as "Indicators of Rangeland Health". The H-4180-1 Handbook defines an "indicator" as: *"Components of a system whose characteristics (presence or absence, quantity, distribution) are used as an index of an attribute (e.g. rangeland health attribute) that are too difficult, inconvenient, or expensive to measure"*. Though the Handbook encourages the use of "...dissimilar indicators..." for each Standard, there is rarely enough information available to have unique indicators for each Standard. Examples of indicators can include ecological condition ratings, plant cover and productivity, different erosional attributes, and

many other potential ones. In this assessment area there has been some limited grazing related information collected due to its moderate priority status. Thus, there are a few quantitative and qualitative indicators that can be used for this Standards assessment. There are also some studies - most notably utilization - which in itself is not an indicator as defined above, but is a well accepted measurement of a primary environmental stressing agent (grazing) which is linked closely with changes in functionality. The indicators and studies used are explained in the assessment that follows. (Note: The brief description of the Standard in bold, is quoted from the approved *"Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public Lands Administered by the Bureau of Land Management in the States of Oregon and Washington - August 12, 1997"*.)

The "Guidelines for Livestock Grazing Management" comprise a set of concepts to consider when evaluating the current or proposed grazing management of an area against the 5 Standards. To quote the 4180 Handbook, a "guideline" is: *"A practice, method or technique used to ensure that standards can be met or that significant progress can be made toward meeting the standard. Guidelines are tools such as grazing systems, vegetative treatments, or improvement projects that help managers achieve standards. Guidelines may be adapted or modified when monitoring or other information indicates the guideline is not effective, or a better means of achieving the applicable standard becomes appropriate."* The actual Oregon/Washington Guidelines for Livestock Grazing Management are included with this assessment, for informational purposes, as Appendix 1.

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STANDARD 1 - WATERSHED FUNCTION - UPLANDS (Upland soils exhibit infiltration and permeability rates, moisture storage and stability that are appropriate to soil, climate and land form.)

The primary information/monitoring to be used in evaluating this Standard are the observations from a recent "Rangeland Health Evaluation Summary Worksheet" prepared at a representative location on the allotment; notes from a recent general inspection of the allotment area; miscellaneous information and file notes found in the grazing files; and the application of professional judgement to the information by BLM personnel who have monitored and are familiar with the area. The indicators that this information helps address are: plant cover, litter, composition, production, age class and community structure; level of erosion and overland flow.

Rangeland Health Evaluation Summary: In June of 2002, this allotment was qualitatively field assessed using the process outlined in Technical Reference 1734-6, *"Interpreting Indicators of Rangeland Health"*. This was performed by a small BLM team consisting of two rangeland management specialists and a botanist. A "Rangeland Health Evaluation Summary Worksheet" - a.k.a. Upland PFC (Proper Functioning Condition) - was prepared at a representative location in the middle of the allotment. The field visit was documented in a memorandum to the files dated 6/19/02. The information for the Coffin allotment is excerpted below (smaller print):

This allotment is almost entirely steep slope on the west and south side of the main Stukel Mountain peak, including the two arrays of radio towers on the peak itself. The allotment is licensed every year but appears to have been little used for decades. In fact, most of the allotment is of only marginal use for cattle grazing due to the steepness.



The BLM lands on the west face of the mountain are extremely steep slopes that a cow would never willingly wander onto. At the base of the mountain where access is possible the lands are all private. See the picture...(next page): the foreground is the steep BLM slope; the rolling hills at the base of the mountain in the center of the picture are all private lands. The BLM lease is essentially a "license of convenience" to cover the possibility of cattle being present on the allotment during use of the adjacent private lands. This is a typical situation for section 15 grazing lands in this area.

The Upland PFC evaluation site was picked as representative of one of the few areas that can be grazed on the allotment and is located on the east side of the Stukel Mountain ridge. In fact, a

few cow pies were noted on the walk off of the Stukel Mt. road (from one of the switchback corners) to the site of the writeup (section 15, NWSE - UTM on Worksheet). The PFC writeup site on this allotment was also a Shrubby Loam 16-20" ecological site but in better condition than on the Hill allotment, due to its position higher on mountain with a NE slope - higher in effective moisture. This area was obviously burned in the 1936 fire and is only about 1/3 mile west of the Hill allotment Upland PFC site. However, due to the better growth conditions, probable less historical grazing, and current slight grazing pressure, the ecological conditions are much better.



The area is dominated by mountain big sagebrush, bitterbrush, various forbs, western & Thurber's needlegrasses, Idaho fescue, and lots of bluebunch wheatgrass. See the photo... Juniper is scarce but present; annual grasses are almost totally absent. The Upland PFC rated all three range health attribute categories -

"Soil/Site Stability", "Hydrologic Function" and "Biotic Integrity" - as "none to slight" departure from ecological site description parameters. In short, the area is in exceptional ecological condition with an estimated rating at 80-90% of PNC. There was actually a fair amount of dead sagebrush evident and it appears that the bunch grasses are out competing it!

See the Upland PFC rating sheet in the allotment file for more information.

The process that produces these Worksheets assesses the current observed conditions against a suitable baseline, typically an ecological site description or ecological reference area, which is defined as follows:

A landscape unit in which ecological processes are functioning within a normal range of variability and the plant community has adequate resistance to and resiliency from most disturbances. These areas do not need to be pristine, historically unused lands (e.g. climax plant communities or relict areas).

As noted in the narrative above, the pertinent ecological site description (*Shrubby Loam 16-20"* - MLRA D-21, site number 021XY218OR) was used as a reference area surrogate for evaluating the upland PFC information. The extensive local field experience of the observers (e.g. ecological site inventory, botanical surveys, rangeland monitoring studies) was also an important part of this evaluation. The area was found to have no ("none to slight") significant deviation from estimated reference area functionality for all the three major attributes of rangeland health - *Soil/Site Stability*, *Hydrologic Function*, and *Integrity of the Biotic Community*. In fact, the area that the Worksheet was prepared within could easily be used as a reference area for this ecological site; it exhibits that high of an ecological status.

Forage Allocation History: Based on a review of the older grazing files, the section 15 grazing lands in the old Lost River Resource Area (which is now part of the current KFRA) were converted from acres based to AUM based licensing between 1968 and 1970. (The section 15 lands are essentially all the KFRA administered lands outside of the Gerber Block Grazing District.) Most of these allotments were converted at the ratio of 10 acres equaling one AUM, e.g. a 100 acre lease of BLM lands was now being leased at 10 AUMs. Many allotments on Stukel Mountain were given a more generous grazing use allocation, though apparently not Stukel-Coffin which was originally converted at the ratio of about 14 acres equaling one AUM. These conversions were not based on any type of range survey or monitoring information, but were instead converted based on allotment acreage and presumably some knowledge of the forage capabilities of the area in general. Given the elevation and climatic regime of our area (13"-18" precip.) and the vegetation communities that this precipitation can support, a 10 acres/AUM maximum allocation can be reasonable. In many areas, however, less is warranted if topography, condition, or other factors limit the availability or usability of forage. This would be true of the Coffin allotment where slope would limit the usability of a significant amount of the forage. Thus, the lighter initial stocking rate.

In December of 1972, the then current BLM range conservationist (Hill - no apparent relation to the permittees in the area of the same name) prepared a "Grazing Lease Data Worksheet" which estimated the forage capacity at 38 AUMs, which was much less than the then (and still) authorized preference of 55 AUMs. The Worksheet did not note any consideration of the steep slopes limiting the forage availability, though it could have been an unrecorded consideration. Notes accompanying the Worksheet also state the following: "*Livestock Grazing: No problems. Haven't had livestock other than a few horses on lease area.*" (The horses were probably in the south end of the allotment, as some old horse sign was also noted during the June 2002 visit to the area. It appears that local residents still pleasure ride in the area.) Presumably because of the grazing observations, the grazing lease was not reduced like others on the mountain in the early 1970's. Since the Coffin allotment received and still receives little grazing use, the actual grazing preference is largely unimportant from a resource viewpoint. It is estimated that the current excellent vegetation conditions and high production could easily support the 55 AUMs of grazing use, if animals would access the area. (Note: The same 1972 notes referenced above stated the following: "*All problems on Stukel Mtn. caused by people being up there.*")

This strong statement again affirms the ever present problems related to the high public access of the area.)

Determination: *This Standard is currently being met.*

Recent observational information indicates that current conditions on the BLM administered lands are ecologically sound - high seral - and appropriate for meeting this Standard.

STANDARD 2 - WATERSHED FUNCTION - RIPARIAN/WETLAND AREAS

(Riparian-wetland areas are in properly functioning physical condition appropriate to soil, climate, and land form.)

There are no riparian or wetland areas on this allotment; it is all upland in nature. As noted above, those uplands are currently in excellent condition and are also not believed to be contributing to any off-allotment riparian or wetland problems.

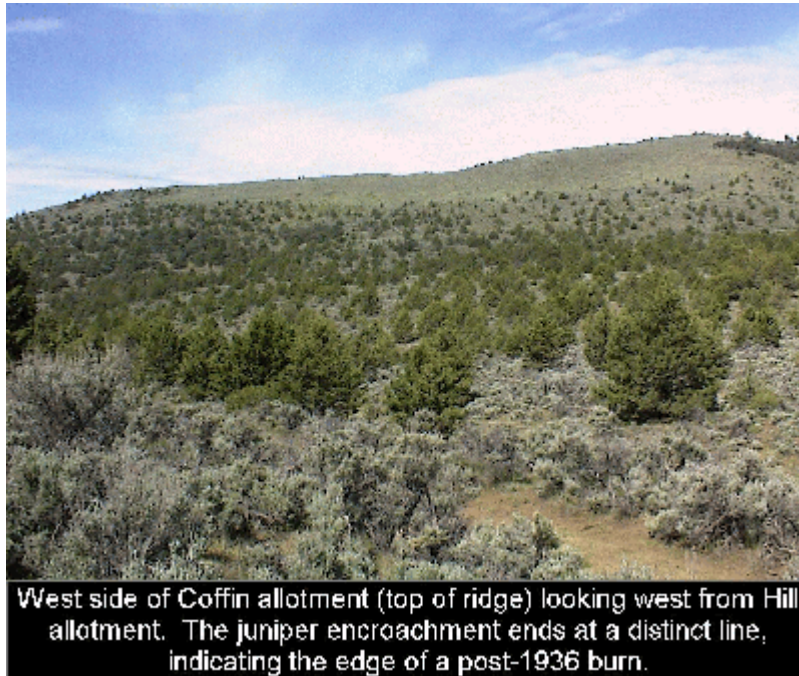
Determination: *This Standard is currently being met (or is not applicable).*

STANDARD 3 - ECOLOGICAL PROCESSES (Healthy, productive and diverse plant and animal populations and communities appropriate to soil, climate and land form are supported by ecological processes of nutrient cycling, energy flow and the hydrologic cycle.)

The primary information and indicators to be used in evaluating this Standard are those listed under Standard 1.

Since the allotment is all upland in nature, the analysis and information listed under Standard 1 is the basis for the determination under this Standard. Most meaningful is that the Upland PFC determination found “none to slight” divergence from estimated reference area functionality for the three major attributes of rangeland health - *Soil/Site Stability*, *Hydrologic Function*, and *Integrity of the Biotic Community*. Though qualitative in nature, the Upland PFC determinations provide a strong indication that ecological processes are functioning properly at this time. The high ecological status of the observed area indicates that functionality will likely continue indefinitely. This is particularly significant in that this area was probably burned in the 1936 wildfire and appears to have been burned once since that time.

One further ecological issue needs some discussion - western juniper (*Juniperus occidentalis*) and its place in the ecosystem of Stukel Mountain. Most portions of the Klamath Basin, above the valley floor and below about 5500', have been experiencing varying degrees of the “juniper problem”. This includes juniper encroachment into vegetation communities - particularly big sagebrush and bitterbrush - that previously had little to no juniper and significant density increases in areas where juniper was and should be present, though in lesser quantity. Though a native plant, in the absence of fire (a function of increased suppression and grazing related fine fuels reduction) and with the stimulus of livestock grazing reducing shrub and grass competition, juniper can increase to the point that the vegetation community is almost a juniper monoculture. This results in diminished habitat capabilities for most native wildlife species, dramatically reduced forage production for all grazing



West side of Coffin allotment (top of ridge) looking west from Hill allotment. The juniper encroachment ends at a distinct line, indicating the edge of a post-1936 burn.

animals, and frequently an environment conducive to the invasion of undesirable exotic plants.

On the Coffin allotment juniper increases have not been an issue primarily due to the effect of the 1936 wildfire and probably at least one subsequent fire. Almost all of the juniper (and pine) was killed by the 1936 fire; the dead trunks litter most of the allotment. Very little juniper or pine has come back on the allotment in the 66 years since the fire, indicating that the area has also burned at least once since 1936 (see picture on

next page). The Hill allotment directly to the east has experienced a significant post-1936 wildfire juniper increase during that same time period. The juniper invasion difference between the two allotments may also be related to Coffin being at a higher elevation (i.e. higher precipitation). The higher moisture in combination with the steep slope limiting grazing use has allowed for a quicker restoration of more desired plant communities and suppressed the juniper re-invasions.

These communities include mountain big sagebrush (*Artemisia tridentata* ssp. *vaseyana*), bitterbrush (*Purshia tridentata*), bunch grasses (including needlegrasses (*Stipa* spp.), bluebunch wheatgrass (*Agropyron spicata*), and Idaho fescue (*Festuca idahoensis*)) and some mountain mahogany (*Cercocarpus ledifolius* and *C. montanus*) sites. Some of the east facing portions of the allotment have thick shrub communities dominated by various *Prunus* species, mountain mahogany, buck brush (*Ceanothus*), manzanita (*Arctostaphylos*), and others. There is also very little in the way of annual grasses on Coffin, though there is some quantity on the drier south and southwest slopes.

Although the allotment appears to have received limited grazing use in recent decades, the area probably received extensive sheep grazing during the late 19th century and first third of the 20th century (i.e. pre-Taylor Grazing Act). The vegetation on the high portions of Stukel has classic, sheep summer range vegetation qualities. It is highly likely that sheep were driven up the mountain in the summer, as many of the ranchers in the area had sheep herds, including the Hill family to the east and south. Unlike other public lands in the West, Stukel probably did not experience much of the migratory sheep grazing “problem” that other, more contiguous, public domain areas did (like the Gerber area to the east). This is because Stukel Mountain has been largely isolated by large amounts of continuous private lands since the early 1900's. It would have been very unlikely that non-local, itinerant sheep herders would have gained access permission across these private lands in order to get to Stukel. Whether the area was overused and damaged by sheep use is impossible to ascertain at this point. The current good ecological conditions argue against that theory.

Determination: ***This Standard is currently being met.***

As with the determination for the first Standard, Standard 3 is considered fully met on this allotment because of the currently elevated ecological conditions. See Standard 1 for the data, evaluation and determination information that is pertinent to this Standard. This allotment is also one of the few in the area where the juniper encroachment issue is not an accelerating problem - a benefit of the 1936 (and probable subsequent) fire.

STANDARD 4 - WATER QUALITY (Surface water and groundwater quality, influenced by agency actions, complies with State water quality standards.)

There are no listed quality impaired waters within or closely adjacent to this allotment. All of this allotment is widely disconnected from the nearest water body of concern - the Lost River - by distance and variably developed private lands and irrigation canals. The Lost River is a State of Oregon 303(d) listed water for an assortment of recognized water quality problems. Grazing on this allotment is not thought to have any effect on the water quality of the Lost River - good or bad - though conceptually the good vegetation conditions on BLM administered lands are likely a positive factor in inhibiting excessive run-off and sedimentation. The lands on and around the Lost River to the south (mouth of the Pine Creek canyon) and west of the allotment are all private and have an array of other impacting and disturbance factors that variably contribute to water quality problems: dense roads, alfalfa and potato farming, houses, ranches, intensive livestock pasturing, a web of irrigation ditches and canals, etc.. Outside of the cattle grazing and a few primitive/semi-improved roads on the BLM lands, none of these impacting activities are within BLM purview. Since the vegetation communities have been judged to be fully functional, the cattle grazing on the Stukel-Coffin allotment (what little there is) is thought to be a non-issue on the areas overall water quality.

Determination: ***This Standard is currently being met (or is not applicable).***

STANDARD 5 - NATIVE, T&E, and LOCALLY IMPORTANT SPECIES (Habitats support healthy, productive and diverse populations and communities of native plants and animals (including special status species and species of local importance) appropriate to soil, climate and land form.)

The primary information and indicators used in evaluating this Standard are those listed under Standard 1.

Animals: The previously mentioned “mini core team” process during 1990-91 did not identify any specific concerns for wildlife (or for any other resource) on this allotment. However, that process did identify Stukel Mountain in general as an important area for deer, as well as a myriad of other wildlife species. In the Klamath Basin, Stukel Mountain is situated like an “island” of largely undeveloped wildlands within a “sea” of developed private agricultural lands. The BLM lands on the mountain (almost ½ of the area) - though not all in as excellent condition as the Coffin

allotment - could be considered as reservoirs of comparatively stable, good condition lands in an area with the potential for drastic change due to its dominant private status. The Coffin allotment contains very good condition, browse dominated, vegetation that should be of significant importance to deer as both summer (north slopes) and winter (south slopes) range. In addition, the high ecological conditions and lack of significant exotic plants are thought to be conducive to a diverse and appropriate assortment of other native animal species.

Plants: No special status plants are known to exist on the allotment. Portions of this allotment were surveyed for special status vascular plants and noxious weeds in 1980, and 1992. The entire allotment was again surveyed in 1997 under a botanical contract for special status vascular plants and noxious weeds. No sites were documented for this allotment.

Determination: *This Standard is currently being met.*

As with the determination for the other pertinent Standards, Standard 5 must be considered met at this time on the allotment. See Standard 1 for the data, evaluation and determination information that is pertinent to this Standard.

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Management Recommendations:

Given the described good conditions and minimal grazing use of this allotment, no specific management recommendations are thought needed at this time. The basic nature of most section 15 public land parcels is often a resource management problem, in that they are the poorest (steepest, rockiest, driest, lowest production, etc.) lands in the area that have remained in the public domain because they were never desired during past land disposal eras. Though this is sometimes a congenital problem on scattered public land parcels, on the Coffin allotment this could be considered a benefit since the area is so steep and inaccessible that impacts have not been significant enough to cause resource deterioration. Even the wildfires, which on the neighboring allotments caused still lingering ecological suppression, did little to the Coffin allotment. In fact the fire(s) have actually helped improve conditions by reducing the competition from juniper, pine, and shrub species and allowed the native grasses to gain a strong and dominate foothold.

The following are a few other general or summary thoughts about the management of this allotment:

1. No formal rangeland monitoring studies need to be established on this allotment. Current conditions are excellent and no change in circumstances are expected. Several photos were taken during the June 2002 field visit; these could be retaken in the future if needed to show general vegetation change over time. (Copies of the photos are found in the newly created Stukel-Coffin allotment folder.)
2. Occasional use supervision checks should take place to ensure that the grazing use is within approved parameters, that drift/trespass is not occurring or is stopped quickly if discovered, and to provide early warning of possible excessive (resource damaging) use. None of this is expected to

happen, but field checks every 2-3 years would be useful to ensure that conditions and/or circumstances are not changing.

3. No juniper treatment (density reduction) needs to be undertaken on this allotment at this time. Unlike most of the grazing allotments on Stukel Mountain, the Coffin allotment does not currently have any juniper encroachment problems at this time. This is not expected to change in the near future due to the apparent successful competition of the native shrub/grass communities against juniper incursions.
4. The grazing preference should be maintained at 55 AUMs, as there is no resource reason to change it at this point in time.
5. Klamath Falls Resource Area has a very proactive weed program which includes inventories and site treatments that consist of biological, chemical, and manual treatments. The treatment efforts are to contain weed sites, reduce population size, and eradicate weed sites where possible. These efforts will continue on this and all allotments in the KFRA.

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Determination

- () Existing grazing management practices and/or levels of grazing use (i.e. potential grazing use as per RMP) on the Stukel-Coffin (#0812) allotment promotes achievement or significant progress towards the Oregon Standards for Rangeland Health and conform with the Guidelines for Livestock Grazing Management (Appendix 1).
- () Existing grazing management practices and/or levels of grazing use (i.e. potential grazing use as per RMP) on the Stukel-Coffin (#0812) allotment will require modification or change prior to the next grazing season to promote achievement of the Oregon Standards for Rangeland Health and conform with the Guidelines for Livestock Grazing Management.

Manager, Klamath Falls Resource Area

Date



Old burned snag on ridgeline - Coffin allotment.

Guidelines for Livestock Grazing Management

Guidelines for livestock grazing management offer guidance in achieving plan goals, meeting standards for rangeland health and fulfilling the fundamentals of rangeland health. Guidelines are applied in accordance with the capabilities of the resource in consultation, cooperation, and coordination with permittees/lessees and the interested public. Guidelines enable managers to adjust grazing management on public lands to meet current and anticipated climatic and biological conditions.

General Guidelines

- A. Involve diverse interests in rangeland assessment, planning and monitoring.
- B. Assessment and monitoring are essential to the management of rangelands, especially in areas where resource problems exist or issues arise. Monitoring should proceed using a qualitative method of assessment to identify critical, site-specific problems or issues using interdisciplinary teams of specialists, managers, and knowledgeable land users.

Once identified, critical, site-specific problems or issues should be targeted for more intensive, quantitative monitoring or investigation. Priority for monitoring and treatment should be given to those areas that are ecologically at-risk where benefits can be maximized given existing budgets and other resources.

Livestock Grazing Management

- A. The season, timing, frequency, duration and intensity of livestock grazing use should be based on the physical and biological characteristics of the site and the management unit in order to:
 - a. provide adequate cover (live plants, plant litter and residue) to promote infiltration, conserve soil moisture and to maintain soil stability in upland areas;
 - b. provide adequate cover and plant community structure to promote streambank stability, debris and sediment capture, and floodwater energy dissipation in riparian areas.
 - c. promote soil surface conditions that support infiltration;
 - d. avoid sub-surface soil compaction that retards the movement of water in the soil profile;
 - e. help prevent the increase and spread of noxious weeds;
 - f. maintain or restore plant communities to promote photosynthesis throughout the potential growing season;
 - g. maintain or restore plant communities to promote photosynthesis throughout the potential growing season;

- h. promote soil and site conditions that provide the opportunity for the establishment of desirable plants;
 - i. protect or restore water quality; and
 - j. provide for the life cycle requirements, and maintain or restore the habitat elements of native (including T&E, special status, and locally important species) and desired plants and animals.
2. Grazing management plans should be tailored to site-specific conditions and plan objectives. Livestock grazing should be coordinated with the timing of precipitation, plant growth and plant form. Soil moisture, plant growth stage and the timing of peak stream flows are key factors in determining when to graze. Response to different grazing strategies varies with differing ecological sites.
 3. Grazing management systems should consider nutritional and herd health requirements of the livestock.
 4. Integrate grazing management systems into the year-round management strategy and resources of the permittee(s) or lessee(s). Consider the use of collaborative approaches (e.g., Coordinated Resource Management, Working Groups) in this integration.
 5. Consider competition for forage and browse among livestock, big game animals, and wild horses in designing and implementing a grazing plan.
 6. Provide periodic rest from grazing for rangeland vegetation during critical growth periods to promote plant vigor, reproduction and productivity.
 7. Range improvement practices should be prioritized to promote rehabilitation and resolve grazing concerns on transitory grazing land.
 8. Consider the potential for conflict between grazing use on public land and adjoining land uses in the design and implementation of a grazing management plan.

Facilitating the Management of Livestock Grazing

1. The use of practices to facilitate the implementation of grazing systems should consider the kind and class of animals managed, indigenous wildlife, wild horses, the terrain and the availability of water. Practices such as fencing, herding, water development, and the placement of salt and supplements (where authorized) are used where appropriate to:
 - a. promote livestock distribution;
 - b. encourage a uniform level of proper grazing use throughout the grazing unit;
 - c. avoid unwanted or damaging concentrations of livestock on streambanks, in riparian areas and other sensitive areas such as highly erodible soils, unique wildlife habitats and plant communities; and
 - d. protect water quality.
2. Roads and trails used to facilitate livestock grazing are constructed and maintained in a manner that minimizes the effects on landscape hydrology; concentration of overland flow, erosion and sediment transport are prevented; and subsurface flows are retained.

Accelerating Rangeland Recovery

1. Upland treatments that alter the vegetative composition of a site, like prescribed burning, juniper management and seedings or plantings must be based on the potential of the site and should:
 - a. retain or promote infiltration, permeability, and soil moisture storage;
 - b. contribute to nutrient cycling and energy flow;
 - c. protect water quality;
 - d. help prevent the increase and spread of noxious weeds;
 - e. contribute to the diversity of plant communities, and plant community composition and structure;
 - f. support the conservation of T&E, other special status species and species of local importance; and
 - g. be followed up with grazing management and other treatments that extend the life of the treatment and address the cause of the original treatment need.
2. Seedings and plantings of non-native vegetation should only be used in those cases where native species are not available in sufficient quantities; where native species are incapable of maintaining or achieving the standards; or where non-native species are essential to the functional integrity of the site.
3. Structural and vegetative treatments and animal introductions in riparian and wetland areas must be compatible with the capability of the site, including the system's hydrologic regime, and contribute to the maintenance or restoration of properly functioning condition.